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(54) Title: HIGH PERFORMANCE LIQUID CHROMATOGRAPHY SAMPLE INTRODUCTION OPTIMIZED WITH BUBBLE
DETECTION

(57) Abstract: Disclosed herein is a device for detecting a condition in a fluid system and initiating a response based on the con-
dition. The device consists of a sensor that responds to a first and second condition of the fluid in the system and a control means
that receives the responses and generates command signals in based on the received response. In a liquid chromatography system,
the device is used to determine the volume of components of the fluid system. In addition, the device allow leaks to be detected and
permits the fluid in the system to be transported at a optimum speed. The device is well implemented utilizing to a light emitter and
light receptor that are sensitive to the fluid in either a gaseous or liquid state.



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